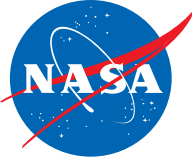


NAC Institutional Committee

NAC Institutional Committee Meeting

November 17-18, 2015

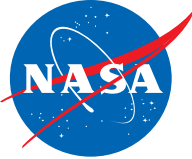
Kathryn Schmoll
Chair



NAC Institutional Committee Membership

NAC Institutional Committee

	Committee Members	Current Employer	Current Position
1	CHAIR: Kathryn (Katy) Schmoll	Kathryn Schmoll and Associates, LLC	CEO and President
2	James L. (Jim) Jennings	Omega Plus, Inc	President
3	Jan E. Jones	none	Retired, United States Capitol Police
4	Alison L. McNally	none	Retired, Smithsonian
5	Alan Paller	SANS Institute	Director of Research
6	Beth Ann Rafferty	Southwest Research Institute	Chief Financial Officer, Vice President - Finance



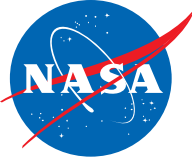
NAC Institutional Committee Work Plan

NAC Institutional Committee

Excerpt from NAC 2014 Work Plan dated April 15, 2014

- **Overhauling NASA's Information Technology (IT) Governance Structure, and Ensuring the Security of NASA's IT Systems:** Review and assess Agency's plans to overhaul the current IT governance structure and ensure the security of NASA's IT systems.
- **Acquisition Reform, and Ensuring the Integrity of the Contracts and Grants Processes:** Review and access Agency plans for acquisition reform and ensuring the integrity of the NASA contracts and grant process.

"This Work Plan is not intended to preclude other areas of potential consideration by the Council or its committees, but rather highlight key areas of interest to NASA's leadership in CY2014."



NASA OIG Report

NAC Institutional Committee

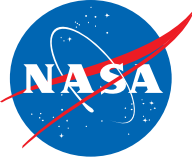
NASA's Top Management and Performance Challenges

identified in OIG report dated Nov 5, 2015

(edits marked from the OIG report dated Nov 14, 2014)

- ~~Managing NASA's Human Space Exploration Programs: International Space Station, Commercial Crew Transportation, and the Space Launch System~~
- Space Flight Operations in Low Earth Orbit: Managing the International Space Station and the Commercial Cargo and Crew Programs
- Positioning NASA for Deep Space Exploration: Developing the Space Launch System, Orion Capsule, and associated Ground Systems, and Mitigating Health and Performance Risks for Extended Human Missions
- Managing NASA's Science Portfolio
- Ensuring Continued Efficacy of the Space Communications Network
- Overhauling NASA's Information Technology Governance ~~Structure~~
- ~~Ensuring the Security of~~ Securing NASA's Information Technology Systems and Data
- Managing NASA's Infrastructure and Facilities
- Ensuring the Integrity of the Agency's Contracting and Grants Processes ~~and the Proper Use of Space Act Agreement~~

Last 4 out of 8 are Institutional Challenges



NAC Institutional Committee

November 2015 Meeting Topics

NAC Institutional Committee

Day 1 – at NASA Headquarters

Business Services Assessment (BSA) Status

Dan Tenney

IT Security Status

Rob Binkley

NASA Facilities Maintenance Program

Scott Robinson

NASA Energy Program

Scott Robinson

NASA Pathways Program

Keith Lowe

Day 2 – at Goddard Space Flight Center (GSFC)

GSFC Overview

Chris Scolese

GSFC Institutional Overview

Nancy Abell

Agency Competition Model

Chris Scolese

GSFC Strategic Investments Panel Discussion

Christyl Johnson GSFC

IT Challenges

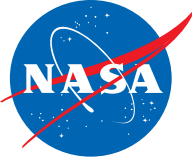
Dennis Vandertuig

GSFC Facility Challenges

Ray Rubilotta

GSFC Tour

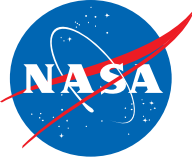
Ray Rubilotta



Business Services Assessment (BSA) Deep Dives

Current Status

- **Pilot Deep Dive**
 - **IT**
 - » Completed May 15
 - » OCIO working on implementation plan for approval by the Mission Support Council (date TBD)
- **2015 Deep Dives**
 - **Procurement**
 - » Decision Package went to MSC November 12
 - **Human Capital**
 - » Business Services Steering Committee (BSSC) distributed pre-MSC option package to stakeholders on November 19
 - » Kick-off with stakeholders scheduled for December 2
 - **Budget Management**
 - » Core team meeting assessed initial data call input and is forming questions for interviews
 - » Follow-up interviews to be held in November
 - **Facilities**
 - » Scope and schedule approved by BSSC on November 18
 - » Data call to be issued to Center and Mission Directorate SMEs in early December
- **2016 Deep Dives**
 - BSSC developing deep dive candidates to review with Deputy Associate Administrator



Improving IT Security at NASA: Top Down Pressure vs. Visible Metrics

NAC Institutional Committee

Security Goal: Reduce Public Web Footprint

TOP DOWN PRESSURE

- + 2013-14 mandate:
 - + IG
 - + Office of CIO
 - + Center Cybersecurity Teams

Top down
pressure

Result:

15%
Reduction in
15 months

VISIBLE METRICS

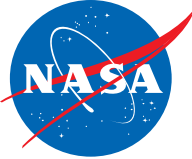
- + 2015 weekly vulnerability scans
 - + Automated
 - + Reliable
 - + Continuous

Employing
NASA's
competitiveness

Result:

49%
Reduction in
4 months

Plus 100% reduction in critical vulnerabilities



BSA Procurement Deep Dive Recommendation Themes

NAC Institutional Committee

Optimize
Volume

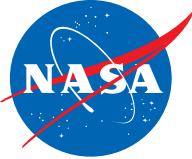
Optimizing Volume options reduce volume of activities, including the number of contracts, tasks, and activities, and the corresponding work being performed with these activities.

Optimize
Time

Optimizing Time options reduce the lead-times in the process, enable consistent policy and guidance to ensure more efficient practices for NASA.

Leadership

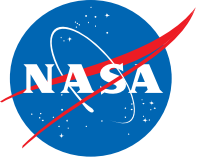
Leadership options strengthen knowledge management, ensure effective project management systems, and enable strong leadership and accountability.



Business Services Assessment (BSA) Procurement Deep Dive

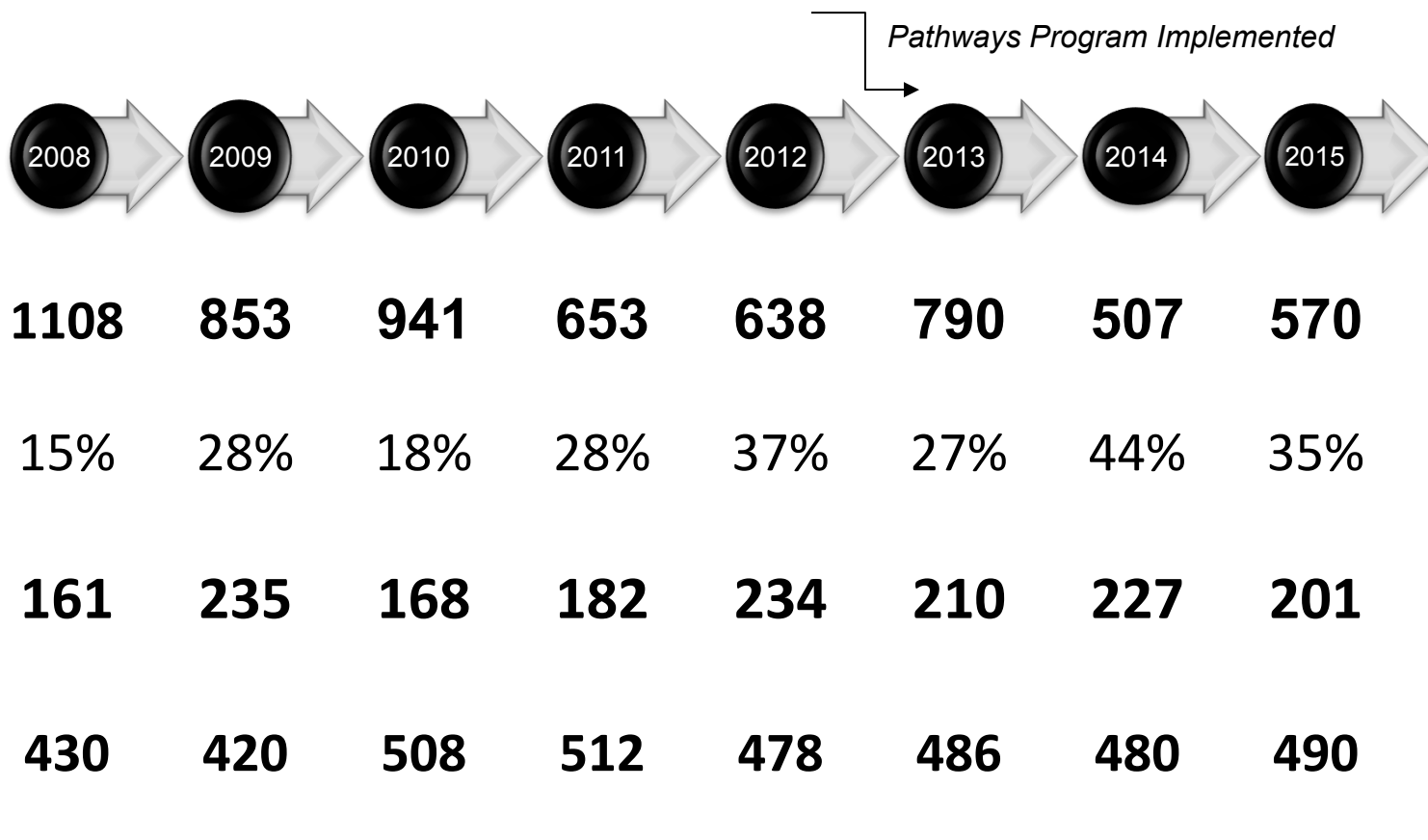
NAC Institutional Committee

- Institutional Committee supports the 8 Mission Support Council (MSC) approved Procurement Deep Dive recommendations
- Decision memo posted: <https://nbat.hq.nasa.gov/bsa/decisions>
- Institutional Committee has proposed to the Mission Support Directorate Associate Administrator that the grants and cooperative agreement functions be included in a Business Services Assessment (BSA) as resources are available.

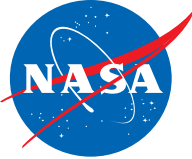


NASA “Co-Op” Hires by Fiscal Year

NAC Institutional Committee



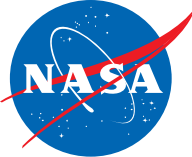
*A small proportion (< 5%) of co-ops in student outcome database come from non-hiring actions, most commonly conversions to Co-op/Pathways.



NASA Pathways Program

NAC Institutional Committee

- NASA Pathways Intern Program
 - Hires about 150-200 interns per year
 - Roughly 2/3 of interns are S&E, 1/3 business/mission support
 - 40% graduate interns, 60% undergraduate interns
 - Receives about 15,000-20,000 applications per year
 - Converts about 60% of interns within four years of hire
 - Currently has nearly 500 interns, enrolled at 200 universities, in 46 states + DC
- Changes in demographics: Co-op to Pathways Program
 - Much more likely to hire veterans (2% in FY11 to 24% in FY15)
 - Older average age of hire (from 24.5 in FY11 to 28 in FY15)
 - Fewer female hires, particularly in S&E fields (from 36% in FY11 to 23% in FY15 in S&E, from 45% in FY11 to 34% in FY15 overall)
 - Fewer minority hires (from 37% in FY11 to 30% in FY15 in S&E, from 38% in FY11 to 35% in FY15 overall)



Facilities Maintenance Funding

NAC Institutional Committee

NASA studies determined that maintenance funding is insufficient to sustain the facilities inventory

- Baseline Service Level Study (2010) **1.6%** of CRV to maintain current condition.
- Funding levels across centers and facilities from FY11-FY14 have been between 0.84% and 0.89% of CRV
- O & M Cost Studies recommended maintenance levels for the 6 facility types below. Table reflects recommended amounts and actual amount based on data analysis.

Building Type	Recommended Maintenance Funding (%CRV)	Actual Annual Maintenance Funding (%CRV)
Administrative Buildings	2.2	1.0
Propulsion Test Facilities	0.7	0.8
Communications Buildings/ Data Centers	5.3	1.6
Space Science R & D Facilities	1.9	0.7
Warehouses	2.4	0.9
Wind tunnels	0.7	0.3